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PA : (TOHR) TOHO CHEM IND CO LTD

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IC : A01N17/10 ;A01N25/24

TI : Biodegradable carrier compsn. for agricultural chemicals - contg. surfactant comprising phosphoric acid ester salt of ethylene oxide adduct with straight chain alcohol

AB : J52151729 Low-pollution carrier compsn. contg. as major component phosphoric acid ester salt of adduct of ethylene oxide with $\geq 4C$ straight chain alcohol. Pref. the salt is present at 35-60 wt.%.
- The compsn. is easily decomposed by microorganism and has very low toxicity to animals and plants. It is mixed with agricultural chemicals liquid at the time of spraying, and it increases the effect of the agricultural chemicals. The present phosphoric acid ester salt is a soft type surface active agent having good biological decomposability and has very low toxicity. Due to the presence of phosphoric acid gp., the present surface active agent shows an excellent stability effect particularly to organic phosphate type agricultural chemicals.
- The phosphoric acid ester salt is prep'd. by adding 2-30 moles of ethylene oxide to 1 mole of at least 4C straight chain alcohol (e.g. butylalcohol, hexylalcohol, octylalcohol, nonylalcohol, laurylalcohol, stearylalcohol) to prepared nonionic surface active agent, reacting the prod. with P2O5 or PC13 and then neutralising the resulting product with alkali(ne earth) metal hydroxides or amine (e.g. alkylamine, alkanolamine). Use of $<4C$ alcohol gives the surface active agent deficient in the surface activity and penetrating activity. Use of alcohol having branched chain alkyl or alkenyl or aryl is not pref. because the obtd. surface active agent lacks biological decomposability.